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ABSTRACT

Three methods of appraising student achievement are discussed: (1) the measurement movement (MM); (2) problem solving (PS) in the curriculum; and (3) decision making (DM) in the curriculum. MMs in education emphasize: verification of student achievement results; objective procedures; alignment of learning opportunities with test items; teaching toward precise objectives; and test validity and reliability. It is contended that this reliance on test scores, the most common method, provides precise results but gives rise to rigid, formal curricula. PS procedures emphasize: learning by doing; students as active participants; actually learning and not just memorizing/mastering; students working in committees; and integrating school curriculum with life. Emphasis on PS skills represents a life-like approach in curriculum development and provides students with the ability to deal with a vast amount of information regardless of the temporal or physical location. DM strategies emphasize: the learner as the focal point of instruction; students individually choosing activities/experiences; learner responsibility for selecting/completing tasks; students governing their classroom behavior; and teachers accepting/encouraging student DM in the curriculum. DM paradigms, particularly those emphasizing the moral dimension, focus on self-evaluation and weighing the effects of ends, means, and appraisal on the self and others. (TJH)

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How Should Student Achievement Be Determined?

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TM 012 447

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HOW SHOULD STUDENT ACHIEVEMENT BE DETERMINED?

A lingering question in the educational arena pertains to how student achievement should be determined. One school of thought stresses that results from standardized tests, valid and reliable, are the best indicators of student progress. Thus, for secondary students, scores on the Scholastic Aptitude Tests (SAT) may be the measuring stick to ascertain student progress (see Education Week, March 2, 1988 issue, page 5). A wall chart might be utilized to compare students using SAT results. The comparisons can be shown state by state in the nation. Within a state, school district comparisons can be made of SAT scores of high school seniors.

The Measurement Movement

The measurement movement can be very strong within a nation. This movement represents one school of thought, among others, as to how student progress could be ascertained. Standardized tests with its norm referenced philosophy makes comparisons among students in terms of achievement. In these tests, the kind of validity involved is stated, be it construct, face, concurrent, or predictive. The standardized tests also state which types of reliability were emphasized, such as test-retest, spilt-half, alternate forms, or test-retest and spilt-half combined.

Measurement philosophies in determining student achievement might also emphasize state mandated tests. These tests are developed by a committee of selected teachers, administrators, and supervisors. Precise behaviorally stated objectives written on the state level are available to teachers. Learning opportunities are selected by the classroom teacher to assist students in goal attainment. State mandated objectives and tests are criterion referenced tests (CRT). With CRT'S the precise ends

are available to classroom teachers who guide students to achieve the measurably stated objectives

Accountability in teaching emphasizes holding teachers responsible for students achievement be it on a norm referenced and/or criterion referenced test Students then need to achieve at a certain level and it is the teacher's role to secure these observable results Blaming a lack of student achievement on low income levels within a home a low quality family environment or a lack of ability to learn is not acceptable The teacher is definitely accountable in securing acceptable levels of student achievement as revealed by test results

SAT scores need to go higher on a yearly basis if teachers are assumed to do a good job of teaching If SAT scores go downhill teachers are not doing a good job of teaching according to believers in the accountability concept This would be true regardless of the numbers each year taking the SAT As more secondary students take the SAT an increased number of slower learners will be involved However advocates of teacher accountability believe that excuses for lower test scores is not acceptable

Measurement movement advocates believe that students should be tested norm and/or criterion-referenced on all or nearly all grade levels Thus it can more readily be noticed in which grade level a student is not achieving adequately The concepts of diagnosis and remediation may then be emphasized

Measuring student achievement can begin at a very young age level Georgia is the first state in the union to test kindergarten age students Standardized test results in part will be used to determine if a kindergartner should be promoted for the next school year to grade one (Education Week March 2 1988 page 1)

Foundations providing grants and aid to new plans and programs of education want measurable results that the innovation is succeeding Test results which verify new methods and procedures as making for improvements in education are desired by foundations providing the needs of funds

Measurement movements in education emphasize

1 Verification of results of student achievement

2 Objective rather than subjective procedures

3 Alignment of learning opportunities with items contained on the test

4 Teachers teaching toward precise objectives Tests measure if students have attained the precise ends

5 The concepts of quality validity and reliability in test construction

Problem Solving in the Curriculum

Problem solving represents a process procedures and methods of learning Predetermined objectives for student attainment definitely are not in evidence Rather students with teacher guidance identify problems within a flexible environment After problem has been selected and adequately delimited data or content from a variety of reference sources is utilized to secure needed information Concrete (models objects realia excursions and replicas) semi-concrete (slides films filmstrips video tapes transparencies and the overhead as well as video discs) and the abstract (reading listening speaking writing and discussions) may be utilized as data sources

A hypothesis based on data gathered needs to be developed The hypothesis is tentative and not an absolute The consequences of the hypothesis needs careful consideration The hypothesis is to be tested in a life-like situation The hypothesis is subject to revision if the evidence warrants

Problems for students to solve cannot be predetermined by the state district or the classroom teacher Students with teacher guidance identify the problem Data sources are chosen by the students The teacher is a stimulator and a guide to assist

students as needed Students also are heavily involved in developing and in testing the hypothesis The steps of problem solving are highly flexible Diverse models are available Rigidity and formality are to be frowned upon in problem solving activities

Problem solving is a process and approach and a method dealing with the mass amount of available subject matter Problems will always need to be identified and solved Whereas the accuracy of subject matter knowledge changes with time and place Change is continually with each person New knowledge skills and attitudes come and go One can only experience life and not know it as it truly is or exists Continuous reconstruction of one's perceptions experiences and ideas are in evidence

Problem solving procedures emphasize

1 A learning by doing approach in education
2 Students as active participants and not passive recipients of knowledge
3 Experiences of learners rather than having students memorize / master predetermined subject matter
4 Students working in committees since situations in life itself stress group endeavors to solve problems
5 Integrating the school curriculum with life itself School and society become one and not separate entities

Since problem solving is a process, measurable results using CRT's or norm referenced tests are not adequate Taking a test is not a life-like situation In society and the societal arena, people rarely take tests to solve problems Rather doing and action are involved in identifying and solving problems In problem solving , problems are identified within a contextual situation and cannot be determined prior to instructing students

Decision-Making in the Curriculum

A third school of thought in ascertaining student progress emphasizes how well students individually make choices and decisions Life consists of choosing and decision-making Individuals need to be responsible for decisions made No one else should be given this responsibility Within a flexible framework a learner for example may select sequential tasks to pursue at different learning stations The choice is up to the student to select and to be on task An adequate number of tasks must be available for the student so those not deemed purposeful may be omitted The teacher assists and guides as is necessary

Student-teacher planning of the curriculum may also be emphasized The teacher with the student plans sequential projects for the latter to complete After the plans have been completed the student carries out what was planned Ultimately the completed project needs appraisal Heavy input from the learner is there to to appraise the project

Student progress in the completed project may be appraised in terms of effort put forth neatness and accuracy responsibility learner purpose interest as well as self-fulfillment

Decision-making in the classroom can involve the student selecting problem solving activities as well as other kinds of learning opportunities such as attaining prespecified objectives

Decision-making strategies emphasize

1. Having the learner as the focal point of instruction
2. Students individually choosing activities and experiences within a flexible framework
3. The learner being responsible for selecting and completing tasks

4 The student governing his/her behavior appropriately in the school/classroom setting

5 The teacher accepting and encouraging student decision-making in the curriculum

In Closing

Selected methods of appraising student progress are in evidence. A common method is to secure test results from students to notice if objectives have been attained by students. Numerical results are then available from each student to ascertain achievement. Either the student has or has not achieved a given set of precise objectives. The exact level of attainment can be noted in terms of the number of measurably stated objectives attained by any given student. A rigid formal curriculum might well be in evidence when emphasizing testing and measurement philosophies.

Problem solving represents a life-like approach in curriculum development. Problem solving represents a process approach in ongoing learning opportunities. Problem solving will always be important in school and in Society. Problem solving represents a rational approach in dealing with the vast amount of knowledge available. Knowledge changes in time and place in terms of values, beliefs, and objectivity. With problem solving, knowledge is utilized as needed to solve problems.

Decision-making on an individual basis is salient in time and place. Choices will always need to be made. Quality decisions, stressing the moral dimension, are of utmost importance. Each decision made has an inherent moral basis. Choices made it terms of ends, means, and appraisal affect the self and others. Self evaluation is highly salient when decision-making strategies are utilized in the curriculum.

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